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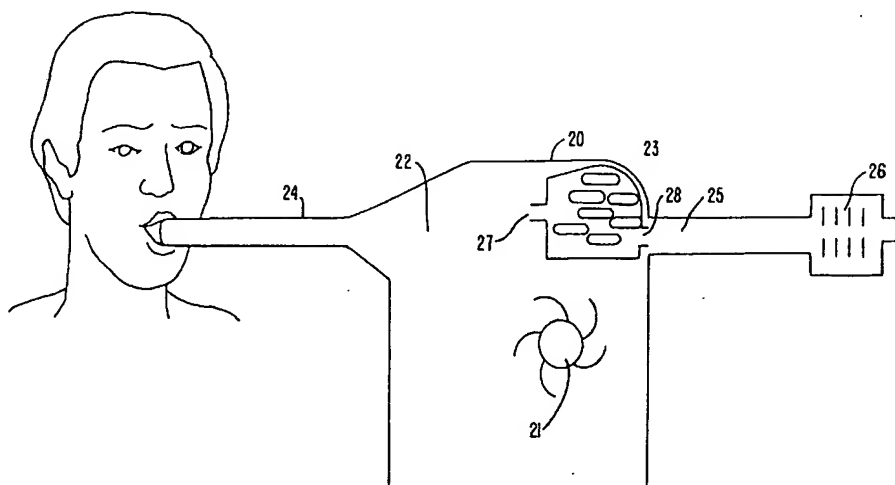
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(54) Title: TRACE LEVEL DETECTION OF ANALYTES USING ARTIFICIAL OLFACTOMETRY



(57) Abstract

The present invention provides a device (20) for detecting the presence of an analyte, including: a sample chamber (22) having a fluid inlet port (24) for the influx of the analyte; a fluid concentrator (23) in flow communication with the sample chamber (22) wherein the fluid concentrator (23) has an absorbent material capable of absorbing the analyte and capable of desorbing a concentrated analyte; and an array of sensors (26) in fluid communication with the concentrated analyte. Methods for detection of various medical conditions, including halitosis and periodontal disease are also disclosed.